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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/725,936

12/03/2003

Takuji Chiba

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4483

21171

7590

05/11/2006

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EXAMINER

PHAM, THOMAS K

ART UNIT

PAPER NUMBER

2121

DATE MAILED: 05/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/725,936

Applicant(s)

CHIBA ET AL.

Examiner

Thomas K. Pham

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. This is in response to the request for reconsideration filed 2/06/2006.
2. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

Quotations of U.S. Code Title 35

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim Rejections - 35 USC § 103

7. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,862,056 ("Iwata").

Regarding claims 1 and 2

Iwata teaches a numerical control apparatus capable of controlling a plurality of controlled axes (see col. 1 line 7-14) and comprising: storage means for storing a command program describing movement amounts or positional information of controlled axes commanded in association with the controlled axes (see col. 3 lines 45-56); and program analyzing means for analyzing and decoding the command program into the movement amounts or positional information of the axes (see col. 3 lines 57-64); wherein the plurality of controlled axes are controlled according to the movement amounts or positional information analyzed by the program analyzing means (see col. 4 lines 17-37).

Iwata does not specifically disclose the control axes are numbered, wherein the controlled axis numbers can be designated by using variables.

"Official Notice" is taken that the concept and advantages of consecutively numbers the control axes in a system with a plurality of controlled axes is well known and expected in the art as disclosed in Japanese Patent No. 62-293307 to Ando et al. where each of a plurality of spindles (controlled axes) for a plurality of motors are consecutively numbered as S1, S2 and S3 (see abstract). Furthermore, the concept and advantages of designating a control axis by means of a variable is well known and expected in the art as disclosed in Japanese Patent No. 03-166605 to Shigeoka et al. where the control axes are used as variables in a sequence control program of a programmable controller.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the numbering of controlled axes and designating variables in a system with a plurality of controlled axes to Iwata because it would provide for controlling each of the plurality of axes independently.

8. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent No. 02-045805 ("Oki").

Regarding claims 3 and 4

Oki teaches the invention including a numerical control apparatus capable of controlling a plurality of controlled axes, comprising: obtaining means for obtaining the controlled axes from the axis addresses written in the command program, based on the correspondences stored in the storage means, wherein the plurality of controlled axes are controlled based on the controlled axes obtained in the obtaining means is taught as obtaining different controlled axes such as main axes, auxiliary axes, and angle calculating axes according to the axis addresses for use in an NC program that controls the controlled axes (see abstract).

Oki does not specifically disclose the control axes are numbered and storing correspondences between axis addresses designating the controlled axes and controlled axis numbers.

"Official Notice" is taken that the concept and advantages of consecutively numbers the control axes in a system with a plurality of controlled axes is well known and expected in the art as disclosed in Japanese Patent No. 62-293307 to Ando et al. where each of a plurality of spindles (controlled axes) for a plurality of motors are consecutively numbered as S1, S2 and S3 (see abstract). Furthermore, it would be obvious to one of ordinary skill in the art to recognize

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that in order for the system to obtain the controlled axes addresses information, the information must have already been stored in the manner that each of the addresses correspond to each of the control axis.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the numbering of controlled axes in a system with plurality of controlled axes to Oki because it would provide for controlling each of the plurality of axes independently.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (571) 272-3689, Monday - Thursday from 6:30 AM - 5:00 PM EST or contact Supervisor *Mr. Anthony Knight* at (571) 272-3687.

Any response to this office action should be mailed to: **Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450**. Responses may also be faxed to the **official fax number (571) 273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thomas Pham
Patent Examiner

A handwritten signature in black ink, appearing to read 'Tom Pham', with a long horizontal flourish extending to the right.

May 3, 2006